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No. 1827.

IN THE

United States Circuit Court of Appeals

FOR THE NINTH CIRCUIT

American Disappearing Bed Company,

Plaintiff in Error,

vs.

Edward Arnaelsteen, Defendant in Error.

BRIEF FOR PLAINTIFF IN ERROR.

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BRIEF FOR PLAINTIFF IN ERROR.

This cause comes before this court upon a writ of error from the Circuit Court of the United States for the Southern District of California, Southern Division.

Plaintiff in error was plaintiff below and defendant in error defendant below and we shall for brevity hereinafter refer to the parties as plaintiff and defendant.

The judgment to be reviewed herein is a judgment in favor of defendant in an action at law brought by plaintiff to recover damages for alleged infringement by defendant of letters patent of the United States No. 839,996, dated January 1st, 1907, granted and issued in due form of law to Lawrence Holmes for improvements in apartment houses with disappearing beds and by mesne assignments vested in the plaintiff. The judgment was entered pursuant to an order sustaining defendant's demurrer, without leave to amend. Plaintiff duly excepted to this ruling of the Circuit Court. [Trans. Rec., pp. 25 and 36.]

Defendant denurred to plaintiff's declaration upon the following grounds:

I. That the claims made in said letters patent, numbered 839,996, as alleged in said declaration, are a mere aggregation of unrelated elements, and not patentable.

2. That the claims made in said patent, as alleged in said declaration, are *illegitimate combinations*.

3. That the claims made in said patent, show on their face, the *lack of patent novelty*.

4. That the said *claims* in the said patent, *are ambiguous*, *unintelligible* and *uncertain* in this: it does not describe in the said specifications and drawings, in such clear and exact terms as to enable any one skilled in the art, to which the invention pertains, to practice the invention; and to distinguish it from the prior art.

It is exceedingly difficult to ascertain from these statements or points of demurrer what alleged defect or defects the pleader had in mind in drawing the demurrer.

The first point seems to be that the claims declared on are for "aggregations" as distinguished from "combinations" in patent law.

What the second ground of demurrer is is as yet

unknown to plaintiff, unless it be merely a restatement of the first ground.

The third ground of demurrer is want of patentable novelty. In other words that the combinations, set forth in the claims declared upon, include nothing but what was old prior to Holmes' invention. As we shall hereafter point out this must mean that *the combination* was old,—not merely the separate parts.

The fourth ground of demurrer is likewise unintelligible to plaintiff and what point is sought to be raised thereby is to plaintiff unknown, unless it be that the description of the patent specification is insufficient to enable a person skilled in the art to make and use the invention. But this cannot be addressed to the claims but must be addressed to the sufficiency of the description as a whole,—the claims are not supposed to be sufficiently descriptive to direct a skilled mechanic in the use of the invention. The claims are the legal metes and bounds of the patent franchise.

In the Circuit Court the case was decided upon a question raised by the trial judge *suo sponte* as inherently involved in the question of *patentable* subject matter, to-wit:—that the subject matter of plaintiff's patent was neither an *art*, *machine*, *manufacture*, *composition of matter*, or an improvement in any of these, and therefore did not disclose an invention for which Congress has authorized the grant of letters patent.

Assignments of Error.

The case comes before this court on the following assignments of error:

That the Circuit Court of the United States, for the Ninth Circuit, in and for the Southern District of California, Southern Division, erred in sustaining the demurrer of the defendant to the declaration of the plaintiff in said cause.

II.

That the said court erred in adjudging that the subject matter set forth and described in the letters patent No. 839,996, dated January 1st, 1907, and claimed in the claims 1, 3, 4, 7, 8, 9 and 10 thereof, do not cover a subject matter which is patentable under the statutes of the United States referring to the grant and issuance of letters patent for inventions.

III.

That the said court erred in sustaining the demurrer of the defendant to the declaration of the plaintiff in said suit, on the ground that the claims made in said letters patent No. 839,996 are, or any of them are, for a mere aggregation of unrelated elements.

IV.

That the said court erred in sustaining the demurrer of the defendant to the declaration of the plaintiff in said action, on the ground that the claims made in said patent No. 839,996 show on their face the lack of patentable novelty.

V.

That the said court erred in sustaining the demurrer of the defendant to the declaration of the plaintiff in said action, on the ground that the claims in said patent were, or any one of them was, ambiguous, unintelligible or uncertain. VI.

That the said court erred in sustaining the demurrer of defendant to the declaration of the plaintiff in said action, on the ground that the claims made in said patent No. 839,996, or any of the claims thereof, are illegitimate combinations.

In considering the writ of error we shall first consider the rule of law applicable to demurrers that urge a patent is void upon its face; then the four points made, or apparently sought to be made, by defendant's demurrer; and lastly the objection of the court to plaintiff's patent, for the court clearly rested its decision solely upon its own point or objection. In fact in commenting orally upon the case at the time of its ruling, the Circuit Court stated it did not consider any of the defendant's points well taken and did consider plaintiff's combination highly useful and ingenious; and that the court had no common knowledge of such a combination in the prior art.

THE RULE OF LAW APPLICABLE TO DEMURRERS IN PATENT CASES, THAT THE PATENT IS VOID ON ITS FACE.

It is well known that patents for inventions are *prima facie* evidence of their validity, and this presumption, arising from the grant and issuance of the patent, must throw the decision in favor of the validity of the patent, if there be any doubt as to patentable novelty.

Morton v. Llewellyn, 164 Fed. 693; Morgan v. Daniels, 153 U. S. 120; Cantrell v. Wallick, 117 U. S. 679; Leubetter v. Holthaus, 105 U. S. 96; Marsh v. Seymour, 97 U. S. 349; Ashcrofts v. Railroad Co., 97 U. S. 197; Coffin v. Ogden, 18 Wall. 124; Gandy v. Belting Co., 143 U. S. 595.

This rule lies at the foundation of the rule regarding demurrers, for if there be any doubt whatever the court will hear the proofs and in any case if then there be doubt the *prima facie* presumption arising from the grant and delivery of the patent will throw the decision in favor of the patent.

Hunt Bros. Fruit Packing Co. v. Cassidy, 53
Fed. 259;
Harper & Reynolds Co. v. Wilgus, 56 Fed. 588;
Bottle Seal Co. v. De la Vergne, 47 Fed. 59.

It may therefore be stated that, when a patent cause, (either in equity or at law), is considered upon a demurrer on the ground the patent is void upon its face, the rule is: The patent must be so clearly void, for want of patentable novelty, that no possible evidence introduced by plaintiff could show validity otherwise the demurrer will be overruled. Or otherwise stated, such a demurrer should only be sustained in exceptional case, where the question is entirely free from doubt, for if doubt appears plaintiff is entitled to its benefit.

Weidich v. Fosbemner, 108 Fed. 266;

Electric Vehicle Co. v. Winton Co., 104 Fed. 814; Wills v. Scranton Co., 153 Fed. 181; 82 C. C. A. 355;

Jackes v. Hemp, 140 Fed. 254; 71 C. C. A. 246;

- Chinnock v. Paterson, 112 Fed. 531; 50 C. C. A. 384;
- Hogan v. Westmoreland Co., 154 Fed. 66; 83 C. C. A. 178;

Faries v. Brown, 102 Fed. 508; 42 C. C. A. 483; Caldwell v. Powell, 73 Fed. 488;

Milner v. Yesbera Co., 111 Fed. 386; 49 C. C. A. 397;

American Co. v. Buckskin Co., 72 Fed. 508; 18 C. C. A. 662;

Manufacturing Co. v. Scherer, 100 Fed. 459; N. Y. Belting Co. v. N. J. Co., 137 U. S. 445.

Such a demurrer should be sustained:

"Only when there is no room for thinking any evidence can be adduced which would, if put into the case, alter the clear conviction of the court that there is no patentable invention in the production patented."

Drake v. Brownell, 123 Fed. 86; 59 C. C. A. 216; Milner v. Yesbera (ubi supra); Strom v. Weir, 83 Fed. 170; 27 C. C. A. 502.

The presence of the slightest evidence of novelty is sufficient to defeat a demurrer for want of invention.

Lyons v. Drucker, 106 Fed. 416; 45 C. C. A. 368.

In Caldwell v. Powell, 71 Fed. 970, Circuit Judge Dallas held:

"No case of this character should be disposed of upon such a demurrer, unless the invalidity of the patent be plain, and the common knowledge relied upon to defeat it be of matters of which the court may properly take judicial notice." In Covert v. Travers Bros. Co., 70 Fed. 788, Circuit Judge Coxe held:

"That a patent, manifestly invalid upon its face, may be so declared upon demurrer, is now settled beyond dispute. * * * It is also true that this power should be exercised with the utmost caution and only in the plainest cases. If there is doubt it should be resolved in favor of the patent."

Circuit Judge Taft (now President of the United States), in American Fibre-Chamois Co. v. Buckskin Fibre Co. (72 Fed. 580), pointed out that to dismiss a suit on demurrer is to deny the plaintiff the right to adduce evidence to support the presumption in favor of the validity of the patent, and said:

"Therefore the court must be able, from the statements on the face of the patent, and from the common and general knowledge already referred to, to say that the want of novelty and invention is so palpable that it is impossible that evidence of any kind could show the fact to be otherwise. Hence it must follow that, if the court has any doubt whatever with reference to the novelty or invention of that which is patented, it must overrule the demurrer, and give the complainant an opportunity, by proof, to support and justify the action of the Patent Office. This is the view which has been taken by the Supreme Court and the most experienced patent judges upon the circuit."

In Rodwell Mfg. Co. v. Housman, 58 Fed. 870, Judge Wheeler said:

"Unless the patent is so void on its face as to require no defence to a suit upon it, the demurrer must be overruled." In Lalance & Grosjean Mfg. Co. v. Mosheim, 48 Fed. 452, Circuit Judge Coxe said:

"The authority of a judge to substitute his knowledge for legal proof should be exercised with the utmost caution and only in the plainest cases. If there be the slightest doubt it is by far the safer way to permit the cause to proceed in the usual manner."

In Bottle Seal Co. v. De la Vergne Co., 47 Fed. 59, Judge Green held:

"To hold letters patent invalid upon a demurrer the judgment must be surely based upon certainty. Doubts must be resolved against the defendant."

In Blessing v. John Trageser Steam Copper Works, 34 Fed. 753, Circuit Judge Shipman said:

"To decide, in advance of an opportunity to give evidence, that no doubt can possibly be given upon the question of invention which would permit the case to be submitted to the jury, seems to me to be ill advised, except in an unusual case. * * * I do not wish to assume that I cannot be better instructed than I am at present as to the degree of ingenuity which the improvement required."

The matter was very well put by Circuit Judge Putnam, in Henderson v. Tompkins, 60 Fed. 758:

"Assumption on the part of courts of knowledge which they may not in fact possess, followed by numerous dismissals of suits upon demurrer, would involve the hazard of barring meritorious causes, contrary to the express allegations of the bill. *Especially* would this occur in that class of cases * * * in which the question of utility and patentable novelty are in some degree determined by what transpires subsequently to the issue of the patent." In Krick v. Jansen, 52 Fed. 823, Judge Townsend said:

"The question of patentable novelty is a question of fact, and, except in a very clear case, it ought not to be decided until after an opportunity has been given to submit evidence thereon * * * and where this question is doubtful an extensive use by the public may serve to resolve the doubt in favor of the patentee."

In Davock v. Chicago & N. W. Ry. Co., 69 Fed. 468, Judge Seaman held:

"It is unquestionable that this objection may be taken by demurrer, and it is equally clear that the demurrer should be overruled, and the defendant put to answer, if the question of invention or novelty is fairly open to doubt. Oftentimes a showing of the prior state of the art will demonstrate that to be true invention which does not seem to possess this merit upon first impression and when read in the simple terms of the patent, and all light in that direction is shut out if the demurrer is sustained. The argument that the court can take judicial notice of certain facts which are of common understanding does not apply, as it would require, for the purposes of this case, an assumption of knowledge, not only of the methods which have been employed for joining the rails, but of the practical difficulties, under various conditions, which were met, and the measure in which the means theretofore employed had failed, and the alleged invention had succeeded, in overcoming them."

In Root v. Sontag, 47 Fed. 308, on demurrer to a bill for infringement, Judge Hawley said:

"Ordinarily the nature of the subject demands the testimony of witnesses skilled in the art to which the patent relates, to enable the court to act intelligently upon the question whether or not the improvement required inventive skill for its production."

Judge Blodgett, in Eclipse Mfg. Co. v. Adams (36 Fed. 554, 556), said:

"While I do not intend to lay down a rule, I am free to say that I do not feel justified in holding a patent void for want of novelty on common knowledge, unless I could cite instances of common use which would *at once*, on the suggestion being made, strike persons of ordinary intelligence as a complete answer to the claim of such patent."

THE HOLMES INVENTION.

In the large cities of our country land values have risen to such heights that cheap rents are only possible by the utmost economy of floor space. More and more have we necessarily become inhabitants of flats and apartments. In order to give renters comparatively low rents and all the modern conveniences, the construction of buildings has been and is being revolutionized. In no other art has the necessity for complete change of construction and manner of utilization become more apparent or more pronounced. It is perfectly apparent to any thinking person that he who improves the conditions under which people live is the greatest benefactor of man. He who improves sanitary conditions is a real public benefactor. He is the truly great and meritorious inventor who thus improves the conditions under which we live and by such improvement of our living conditions ensures, not simply the health and happiness of the present generation, but ensures the raising of our children under sanitary and health ensuring conditions thus providing our country with strong, healthy men and women for the future. Our forefathers in drawing our Federal Constitution most certainly have had in view the promotion, not simply and solely of the technical arts and sciences, but the promotion of the peace, health and happiness of the people, and it is clear that the Federal Constitution is so drawn as to authorize the grant of letters patent to him who produces improved conditions in that most vital and essential of all human utilities,—the habitation.

This habitation is not architecture, it is not mathematics, it is not chemistry, it is not abstract science, but it is the concrete entity, the thing itself. This should be borne in mind at all times during the consideration of this controversy. Mr. Holmes' invention was not a drawing, not an architectural *design*, but a thing produced according to and embodying a combination of elements in new interrelations first produced by him.

Plaintiff in a trial of this case upon its merits, will be able to prove by the most positive testimony of the leading architects, contractors, builders and property owners, not only from Los Angeles, San Francisco, Portland, Seattle and the whole Pacific Coast, but by the foremost architects of the United States, men who have for years led in the architectural world in Chicago, New York, Boston and other eastern cities, and by prominent contractors and builders from all these great centers of population, industry and learning, skill and knowledge, that Mr. Holmes' invention has been revolutionary in the building of apartment houses and flats;

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that until Mr. Holmes blazed the way, such a construction and interrelation of parts was unknown; that it was not a part of the known art; that by its use from 25 to 40 per cent of the floor space is economized and the rental values increased from 25 to 40 per cent; that immediately upon the introduction by Mr. Holmes of his invention it went into the most general and extensive use, and that many thousands of apartments have been furnished with the Holmes combination; that architects, builders and owners have been more than enthusiastic over its important advantages and that it has been universally adopted and utilized.

We realize that this is strong language and a radical statement, but the testimony of the architects and builders will substantiate it.

This is strong evidence to show that the combination produced by Mr. Holmes was not mere public knowledge; that it was not mere ordinary architectural skill, but on the contrary involved the creative genius of the inventor: that such a combination was not within the ordinary knowledge or skill of an architect and was not the execution of the general principles or prescriptions of custom or tradition, but on the contrary the exercise of that creative faculty, known in the law as "invention." It was not the application of known rules, but was the embodiment of an interrelation of parts contrary to known ideas and theories, and a radical departure from tradition, custom and the ordinary knowledge of architects. Such evidence must be of strong probative effect on the issue of "invention"; it would most certainly and definitely show that Mr. Holmes' invention was novel and highly useful.

We submit that such testimony of architects would conclusively show that Mr. Holmes' invention was not the mere skill of the architect and that it involved more than the usual architect's designing. That it involved more than the common knowledge of architects.

The testimony of leading architects that the Holmes Combination was a revelation to them; that it was unknown to them prior to Mr. Holmes' invention; that it was exceedingly useful and had been generally adopted by them and that they had used it in large buildings; that it had revolutionized apartment houses, must conclusively show that the Holmes Combination required the exercise of the inventive faculties to produce it and was not mere architectural skill.

The general adoption and extensive use by the public in all parts of the country, practically superseding all former combinations, shows conclusively the extreme novelty of the Holmes Combination. The presumption of invention and of patentable novelty arising from the grant and issuance of the Holmes patent, is thus strongly re-enforced by such evidence and in case of any doubt would be of extreme force upon this issue. For it is well settled that where it is shown that a patented combination has gone into general use and that the public, and those skilled in the art to which the invention appertains, have favorably received and made use of the combination, such a showing proves where there was so apparent a demand and requirement for the combination and the ordinarily skilled did not produce it, that it required more than their ordinary knowledge and did amount to invention; is strong evidence of patentable

novelty; that such evidence is sufficient to control the decision in a doubtful case.

The Barbed Wire Patent, 143 U. S. 275; Keystone v. Adams, 151 U. S. 139;

Nat. Brake Beam Co. v. Inter-Nat'l Brake Beam Co., 106 Fed. 707;

Smith v. Goodyear Dental Vulcanite Co., 93 U. S. 405;

Lane v. Welds, 99 Fed. 286, 39 C. C. A. 528; Irwin v. Hasselman, 97 Fed. 964; Dowagiac Mfg. Co. v. Superior Drill Co., 115

Fed. 895.

"In determining the question of invention, the fact that the article produced supersedes all other appliances, or that a useful or commercial result has been attained, or that the value of the thing patented has been recognized by the public in extensive use, has a controlling if not conclusive effect; and it should have on obvious principles of justice to one who sees that which he suggests contantly adopted and used by others."

Wilkins Shoe B. Co. v. Webb, 89 Fed. 982;

Krementz v. The S. Cottle Co., 148 U. S. 556; Western Elec. Co. v. Chicago Elec. Co., 14 Fed. 691;

Star Brass Co. v. General Elec. Co., 111 Fed. 398;

Union Biscuit Co. v. Peters, 125 Fed. 601, 60 C. C. A. 337;

- St. Louis St. Flush. Mach. Co. v. American St. Flushing M. Co., 156 Fed. 574, 577;
- Kinloch Tel. Co. v. Western Elec. Co., 113 Fed 659, 665;
- Robbins v. Dueber Watch Case Co., 71 Fed. 186.

"Apart from the presumption of validity that always attends the grant of a patent, the law is that where it is shown that a patented device has gone into general use and has superseded prior devices having the same purpose, it is sufficient evidence of invention in a doubtful case."

Your Honors have also given great weight to this evidence in

Los Alamitos Sugar Co. v. Carroll, 173 Fed. 280; Parker v. Stebler (decided March 7, 1910).

The testimony of these architects and builders will enable both the court and the jury to appreciate and fully realize the many difficulties in use and objections to the structures known prior to Mr. Holmes' invention and the many advantages secured by Mr. Holmes' combination and enable both the court and jury to judge *from facts* fairly and knowingly and not require guess or conjecture.

This testimony will clearly explain the line of demarkation between *mere architectural skill* and *invention* as applied to the production of new combinations in buildings.

Mr. Holmes recognized the fact that the space ordinarily taken up by the bedsteads in bedrooms of our residences was practically wasted as it could not be utilized except when the bed was in use. He recognized that if the bedstead could be easily and conveniently removed and stored in space otherwise wasted, that great economy of space would be secured and all the room or space in a habitation utilized at all times. Mr. Holmes realized the objections and dangers incident to folding and pivoted bedstead constructions, which require more strength to manipulate than is often possessed by our women. Testimony will amply show such objections and dangers are substantiated. Mr. Holmes conceived the advantage of producing a combination which would enable the use of a bedstead at all times resting on the floor and never required to be lifted from the floor. But how to utilize such a bedstead and yet have it entirely out of the way during the daytime and so stored that it would not be unsightly and would also be thoroughly aired and ventilated was the problem. Others had recognized this problem, but Mr. Holmes solved it, and was the first to solve it.

Thorough ventilation,—thorough airing of the bedstead and bedclothes eliminates all probability of vermin, bugs and roaches. It is well known that vermin do not propagate in well ventilated and aired places.

To utilize such a horizontal bed and so interrelate the bedstead and the other furniture of the apartment as to make such a combination appeal to the decorative tastes, it was necessary that not only should the combination be conveniently arranged but so arranged that when the bed was stored away it was not only concealed but its manner of concealment should be such as to remove all suggestion of its presence. This then would enable the living room, dining room or reception room of the daytime to be used without visitors having the feeling of being received in a bed chamber and yet provide for the convenient conversion of such living room, dining room or reception room into a bed chamber when the time of retiring arrives. This also would enable the use of every room of the house or apartment as a bed chamber at night.

Mr. Holmes conceived the idea of building a secondary or supplemental floor above the floor of the apartment between which and the common floor of the apartment the concealing recess for the bedstead would be formed. Mr. Holmes conceived the idea that such a supplemental floor could be placed either in a bath room, clothes closet, or other desired portion of the apartment. With this happy thought the solution followed. The secondary floor would not detract from the usefulness of the bath room or closet,—he would have a recess for the bed by utilizing space otherwise wasted.

In other words, Mr. Holmes conceived the idea that wherever there was a bath room, or a clothes closet, or even a buffet kitchen, in a building, that by putting in place a secondary or supplemental floor in such bath room, closet or kitchen, he could provide a bed receiving recess between the real floor and such superposed or secondary floor and then by cutting a suitable opening, the width of the bedstead, through the partition of such bath room, closet or kitchen into the adjoining room, provide the necessary access to such bed receiving recess and could provide for the automatic closing of the opening through the partition by providing the head board or foot board of the bedstead in such form as to fit the opening and form a continuation of the partition when the bedstead was rolled into place in the concealment recess; that the ventilation and airing of the bedclothes while stored in such concealment could be accomplished by a ventilation opening from the bed receiving recess thus formed into the space between the main partitions and thence to the open air outside the building. This combination the Patent Office has found to be novel and patentable and the testimony of architects will prove that prior to Mr. Holmes' invention it was unknown to them and that it has revolutionized the art.

By this combination the kitchen, clothes closet or bath room are unobstructed and can be used for their designed purposes without interference from the bedstead or its concealment and the adjoining room can be used as a dining room, library, reception or living room, while at night the bedstead can be pulled into such room, which is thus converted into a sleeping apartment.

It is thus seen that Mr. Holmes' combination can be placed in any building and that in constructing new buildings the architect can *now* utilize Mr. Holmes' combination in various ways, suiting the general arrangement of partitions to most economically utilize the principle of Mr. Holmes' invention. In other words, now that Mr. Holmes has produced this combination, it has become part of the known art and the architect in designing and laying out his floor plans and partitions can work Mr. Holmes' combination into the building in various manners. *This emphasizes the difference between the inventive faculty and the ordinary skill of the architect*.

In order to further economize space, the partition, so provided with the mouth of the bed receiving recess, may be formed into many useful articles. It may be the side-board of the dining room and have suitable shelves and drawers above the recess, or if the bed is to be used in what during the day time is the reception, living room or library above the mouth of the recess, book cases and a writing desk may be constructed, or a large mirror and a representation of a chiffonnier or dresser with suitable drawers may be arranged above the recess.

In the economy of space the apartment may with Mr. Holmes' invention be so arranged that one portion of the space above the secondary floor may be utilized for kitchen cupboards, while the opposite portion may be arranged either as a bath room or clothes closet.

Aggregation of Unrelated Elements.

The first point made by the demurrer is that the claims of the Holmes patent are "a mere aggregation of unrelated elements and not patentable." This is covered by the third assignment of error.

We call particular attention to the fact that this objection does not apply with the same force to a "manufacture" as to a "machine."

"The distinction between a combination and an aggregation is not as easily discerned in this class of inventions as in the case of a machine. Where two machines, each having its own law of operation, are united, it is not generally difficult to ascertain whether each operates only according to its own peculiar law, or whether by their union a new structural law has been imposed on the conjoined machines, whereby they have become the expression of a new idea of means which severally and collectively they did not suggest. But in a manufacture the law of operation is in the source from which the motive power is drawn; and the action of the instruments in their united state, so

far as it depends upon the instruments themselves, often remains the same as before they were united. In such cases the act of the inventor in the collocation of these instruments gives the resulting instrument no new inherent mode of operation, but simply places the collocated instruments in such relations to a common object that under the direction of the external motive power their co-action upon it or upon each other may produce some effect which, if they acted separately, could not be obtained. Thus it may be assumed as to most inventions of this class that a true combination has been formed whenever the action of the combined elements leads to a result essentially distinct from any that could be attained by the employment of the elements in a separated state, although the mode of their co-operation cannot be perceived; while in a machine the principal if not the sole test of the formation of a new combination is to be sought, not in its product or result, but in its manifestation of a new structural law."

Rob. on Pats. Vol. 1, Sec. 185, pp. 272-273.

In the foot note to this section the author says:

. "That a new end or result is accomplished by an art or instrument is conclusive evidence that the art or instrument is also new. Hence when the collocation of two simple manufactures produces an instrument capable of doing what neither manufacture could have done alone, and what both could not have done if each were used independently of the other, this resulting instrument is necessarily a different manufacture, whether the fact or the mode of the co-operation between the combined instruments is otherwise discernible or not. It may well be doubted whether many of the cases which have been decided against the patentees of manufactures on the ground that the instrument claimed was a mere aggregation have not been governed by principles applicable rather to machines than manufactures, and really meritorious inventions been thus denied the protection of the law."

The true rule is that

"A combination, to be patentable, must produce a new and useful result as the product of the combination, and not a mere aggregate of several results, each the complete result of one of the combined elements."

"If it were essential to a valid patent for any combination whatever, that the mode of operation of every element included in the combination should be changed by each of the others, it would have been impossible to sustain several combination patents which have in fact been upheld, as indeed, it would be difficult to conceive of any mechanical combination which would be both possible and patentable."

National Cash Reg. Co. v. American Cash Reg. Co., 53 Fed. 371.

To the same effect is the opinion of Judge (now justice) McKenna in

Bowers v. Von Schmidt, 63 Fed. 582.

See also,

Walker on Patents (4th Ed.) Secs. 32 and 33;
American St. Car Adv. Co. v. Newton Co., 82
Fed. 732, 734;
Strobridge v. Landers, 11 Fed. 880;
San Francisco Bridge Co. v. Keating, 68 Fed. 351, 354.

But in all these the bedstead is the central and leading element,—the combination is with the bedstead of a means for chambering or storing and concealing and ventilating the bedstead and bedclothes, and doing this by utilizing space otherwise wasted.

As said in Blake & Knowles Steam Pump Works v. Warren Steam Pump Co. (155 Fed. 285, 293): "The criticism that the claims specify 'merely an assemblage of structural features, among which some are functionally independent of the others and have no mutual influence or effect upon one another,' does not present a proper test of the existence of a true combination. * * * It would be introducing an impractical refinement * * * to invalidate claims which are drawn in a usual, practical and convenient form."

See also:

St. Louis Street Flushing Mach. Co. v. American Street Flushing Mach. Co., 156 Fed. 574, 579.

In Stutz v. Armstrong (20 Fed. 843, 847), Judge Acheson says:

"The defendants, however, insist that there is no patentable combination between the partition, valve and sieve, because, as they allege, no new operation or result is due to their united action; that the partition and valve are altogether independent of each other, and in nowise aid or co-operate with each other in performing their respective functions, and the claim is founded upon a mere aggregation of parts, which operate independently of each other, producing no result due to their joint and co-operating action. Now, certainly there is no patentable combination in a mere aggregation of old devices which produce no new effect or result due to their concurrent or successive joint and co-operating action. But it is by no means essential to a patentable combination (as the defendant's argument implies) that the several devices or elements thereof should co-act upon each other; it is sufficient if all the devices co-operate with respect to the work to be done, and in furtherance thereof, although each device may perform its own particular function only."

In Hoffman v. Young (2 Fed. 74, 77), it is said:

"A mere aggregation of old parts, without any new result issuing from their united action, is not patentable. The parts must combine in operation, and by their joint effect produce a new result. They need not act simultaneously. If so arranged that the successive action of each contributes to produce the result, which, when obtained, is the product of all the parts, *viewed as a whole*, a valid claim for this combination may be sustained. Williams v. R. Co., 15 O. G. 655; Waring v. Wilkinson, Id. 247; Forbush v. Cook, 2 Law Rep. 664; Herriny v. Nelson, 12 O. G. 362."

The Circuit Court of Appeals for the Eighth Circuit, in Deere & Co. v. Rock Island Plow Co. (84 Fed. 171), says:

"The new result which a combination is required to attain is a result which is new and distinguishable as compared with results produced by the elements in their separate state, or as assembled in a mere aggregation without functional relations to each other. A combination is not unpatentable merely because its results may also have been produced by other combinations."

In other words the several elements set forth in each of the claims are essentially used in connection with each other to secure the one unitary result sought. This proves a true combination.

"The essential elements of the patent are dependent upon each other to successfully and practically in combination perform their special function."

Brown Bag Filling Co. v. Drohen, 140 Fed. 07, 100.

Under these authorities it is clear that the claims of the Holmes patent cover true combinations and not mere aggregations of unrelated elements, and the first and second grounds of demurrer could not be sustained. The lower court did not sustain either thereof.

If follows therefore that the claims of the Holmes patent being for true combinations, in the Patent Law sense, that such claims can only be anticipated by showing that *the combination* is old for the combination in the eyes of the law is an entity separate and distinct from its parts.

As said by the Circuit Court of Appeals for the Sixth Circuit, in Yesbera v. Hardesty Co. (160 Fed. 120, 125):

"The unity of the combination, not the several parts, is the test of invention."

"The point to be emphasized is that the law looks not at the elements or factors of an invented combination as a subject for a patent, but only to the combination itself as a unit distinct from its parts."

In Brown Cork & Seal Co. v. Standard Brewery (174 Fed. 262), the court says:

"All the claims are for a combination. A combination is a union of elements which may be partly old and partly new, or wholly old or wholly new. But, whether new or old, the combination is a means,—an invention,—distinct from them. They, if new, may be inventions, and the proper subjects of patents, or they may be covered by claims in the same patent with the combination. * * * They are not identical with the combination. * * * Certainly one element is not the combination, nor in any proper sense, can it be regarded as a substantive part of the invention represented by the combination, and it can make no difference whether the element was always free or becomes free by the expiration of a prior patent, foreign or domestic. In making a combination, an inventor has the whole field of mechanics to draw from."

The Supreme Court, in Leeds & Catlin Co. v. Victor Talking Machine Co. (213 U. S. 301, 318), in using the language just quoted by the court in the Crown Cork & Seal Co. case, also savs:

"It is however the combination that is the invention, and is as much a unit in contemplation of law as a single or non-composite instrument."

Your Honors have recognized and applied this doctrine of the legal entity of a combination as distinct from its parts or elements in

Los Alamitos Sugar Co. v. Carroll, 173 Fed. 280.

It is well established law that want of novelty in a combination cannot be shown by showing that its elements separately considered are old, but it must be shown that *the combination* is old.

The burden of proving anticipation or want of novelty is upon the defendant. It is an affirmative defense. R. S. U. S. 4920 requires the defendant to plead the alleged anticipation and the proofs must follow the pleading or they cannot be considered to establish want of novelty or invention.

Morton v. Llewellyn, 164 Fed. 693.

The burden of proving anticipation is such that the defendant must prove it beyond reasonable doubt.

"Anticipation must be proved by evidence so cogent as to leave no reasonable doubt in the mind of the court."

Underwood Typewriter Co. v. Elliott Fisher Co., 165 Fed. 927;

Seymour v. Osborn, 11 Wall. 516, 555;
Sewall v. Jones, 91 U. S. 171, 194, 196;
Bates v. Coe, 98 U. S. 31, 44;
Crown Cork & Seal Co. v. Standard Stopper Co., 136 Fed. 199;
American Co. v. Leads, 87 Fed. 873, 876;
Hall Signal Co. v. General Ry. Signal Co., 169 Fed. 290, 295.

It has often been held that apparent obviousness after a successful production by an inventor has shown the successful accomplishment, is not a safe reliance in judging the question of invention.

> Expanded Metals Co. v. Bradford, 214 U. S. 266; American Graphophone Co. v. Leeds & Catlin

American Graphophone Co. v. Leeds & Catim Co., 170 Fed. 329.

The very fact that, after a certain thing has been successfully accomplished by an inventor, it should seem obvious, has been held to be the best proof of the requirement of invention, where there was a demand in the art therefor, and it was not earlier produced.

As said by the Supreme Court in Webster Loom Co. v. Higgins (105 U. S. 580, 591):

"But it is plain from the evidence, and from the very fact that it was not sooner adopted and used, that it did not, for years, occur in this light to even the most skillful persons. It may have been under their very eyes, they may almost be said to have stumbled over it; but they certainly failed to see it, estimate its value, and bring it to notice. * * * Now that it has succeeded, it may seem very plain to anyone that he could have done it as well. This is often the case with inventions of the greatest value." See also:

Expanded Metal Co. v. Bradford, 214 U. S. 266; Bates Machine Co. v. Wetter Co., 136 Fed. 776.

The courts have many times remarked that it was the seemingly obvious and simple things which were the most obscure, and as said by Mr. Justice Brown, in The Barbed Wire case (143 U. S. 154):

"In the law of patents it is the last step that wins. It may be strange that, considering the important result obtained by Kelly in his patent, it did not occur to him to substitute a coiled wire in place of the diamond-shaped prong, but evidently it did not, and to the man to whom it did, ought not to be denied the quality of inventor. There are many instances in the reported decisions of this court where a monoply has been sustained in favor of the last of a series of inventors, all of whom were groping to attain a certain result, which only the last one of the number seemed to grasp."

See also:

Keystone Mfg. Co. v. Adams, 151 U. S. 139.

In Potts v. Creager (155 U. S. 597), the Supreme Court says:

"Indeed, it often requires as acute a perception of the relations between cause and effect, and as much of the peculiar intuitive genius which is a characteristic of great inventors, to grasp the idea that a device used in one art may be made available in another, as would be necessary to create the device *de novo*. And this is not the less true if, after the thing has been done, it appears to the ordinary mind so simple as to excite wonder that it was not thought of before. The apparent simplicity of a new device often leads an inexperienced person to think that it would have occurred to anyone familiar with the subject; but the decisive answer is that with dozens and perhaps hundreds of others laboring in the same field, it had never occurred to anyone before. The practiced eye of an ordinary mechanic may be safely trusted to see what ought to be apparent to everyone. As was said by Mr. Justice Bradley, in Webster Loom Co. v. Higgins, 105 U. S. 580, 591 (26: 1177, 1181): 'Now that it has succeeded, it may seem very plain to anyone that he could have done it as well. This is often the case with inventions of the greatest merit."

We are in the dark absolutely, as to what common knowledge is relied on by defendant to sustain the fourth point of demurrer that the claims of the patent in suit, show on their face, want of patentable novelty.

Under the foregoing statement of facts, of evidence capable of production by plaintiff, and the foregoing rules of law, it is submitted that the question of patentable novelty is one for the jury. It is most certainly a question, to say the very least, upon which plaintiff should have its day in court and be given a full opportunity to prove by expert and other evidence the fact of invention and should not be determined upon surmise. As Circuit Judge Shipman said in Blessing v. John Trageser Steam Coffee Works (34 Fed. 753):

"I do not wish to assume that I cannot be better instructed than I am at present as to the degree of ingenuity which the improvement required."

The sixth assignment of error refers to the fourth statement of ground for demurrer, i. e.

"that the *claims* in the said patent are ambiguous, unintelligible and uncertain, in this: It does not describe in the said specifications and drawings, in such clear and exact terms as to enable anyone skilled in the art, to which the invention pertains, to practice the invention; and to distinguish it from the prior state of the art."

This ground for demurrer has a double aspect. It first raises (as plaintiff understands the demurrer), the question of the sufficiency of the disclosure of the patent *as a whole* to enable one skilled in the art to make and use the invention, and second, it seems to raise some kind of a question as to the sufficiency of the claims on some ground that the claims do not distinguish the invention from the prior art. What "prior art" is referred to is not apparent as the court does not take judicial notice of private or special facts, but only of matters of common knowledge

"Of private and special facts, in trials in equity and at law, the court or jury, as the case may be, *is bound to exclude the influence* of previous knowledge."

Brown v. Piper, 91 U. S. 37.

Courts will not even take judicial knowledge of statements in encyclopedias, dictionaries and text books, which are not matters of general knowledge.

Kaolatype Eng. Co. v. Hoke, 30 Fed. 444.

Such statements are "printed publications" and form the 3rd defence to be proven by defendant.

> Walker on Patents (4th Ed.), Secs. 440, 444; Foster Fed. Pr. (3rd Ed.), Sec. 106, p. 284; Drainage Constr. Co. v. Englewood, 67 Fed. 141.

On the second aspect of this fourth ground of demurrer, we pause to remark that, if the Holmes invention embraces nothing novel or original,—if it was all old and well known,—it can hardly be that the drawings and description are insufficient to enable the skilled mechanic or artisan to make or use the invention, for such a lack of novelty inherently involves the requisite prior knowledge of how to make and use. It would seem, therefore, that the demurrer in effect admits the novelty of the Holmes invention.

The question of sufficiency of the description is one of fact to be determined by the jury from the testimony of those skilled in the art to which the invention appertains, and plaintiff should most certainly be given the opportunity to produce these witnesses and by them prove the sufficiency of the disclosure of the patent.

> Wood v. Underhill, 5 Howard I; Tyler v. Boston, 7 Wall. 327; Bene v. Jeantet, 129 U. S. 683.

This rule has the approval of this court in Fullerton Walnut Growers Assn. v. Anderson-Burugrover Mfg. Co., 166 Fed. 443.

The claims clearly set forth combinations which are fully shown in the drawings of the patents and are freely described in the specification. It is well settled that claims of a patent are to be read and construed in the light of the specification, which is to be used as an aid in interpreting the claims.

> Brooks v. Fiske, 56 U. S. 212; Hogg v. Emerson, 52 U. S. 587; Turrill v. 'M'ichigan Southern Co., 68 U. S. 491; Seymour v. Osborne, 11 Wall. 516.

-34-

The claims of the patent in suit were found sufficiently definite and certain by the court below [Trans. Record, page 29], and cannot be said to be uncertain, or ambiguous or unintelligible. Each claim definitely sets out the combination in the interrelations claimed therein. Claims of letters patent are technical and are not supposed to be drawn to definitely describe every part unless it is desired to limit the claim to the specific description of parts as set out in the claims.

The Holmes combination the proper subject of a patent under the Federal Constitution and the patent statutes of the United States.

Prior to the time when the original thirteen colonies declared their independence of the king of the United Kingdom of Great Britain and Ireland, letters patent for new and useful inventions were granted under statutes authorizing the grant of letters patent for any new and useful art, machine, manufacture, composition of matter, etc., all comprehended within the term "manufacture."

In Boulton v. Bull (1795), 2 H. Bl. 463, Eyre, C. J., said:

"It was admitted in the argument at the bar, that the word 'manufacture' in the statute (21 Jac. I, c. 3), was of extensive signification, that it applied not only to things made, but to the practice of making, to principles carried into practice in a new manner, to new results of principles carried into practice. Let us pursue this admission. Under things made, we may class in the first place, new compositions of things, such as manufactures in the most ordinary sense of the word; secondly, all mechanical inventions, whether made to produce old

or new effects, for a new piece of mechanism is certainly a thing made. Under the practice of making we may class all new artificial manners of operating with the hand, or with instruments in common use, new processes in any art, producing effects useful to the public." I *Abb. P. C.* 59 (87).

In a footnote to *Rob. of Pats.*, Vol. 1, Sec. 69, page 106, the author says:

"This classification of C. J. Eyre evidently includes an art, machine, manufacture, and composition of matter. That a design is an invention relating to the industrial arts, and consequently the proper subject-matter of a patent, was a subsequent conception both in the American and English law. The patentability of an improvement upon an existing invention was, in the earlier history of the law, denied. Lord Coke, who was chairman of the committee on the passage of the stat. Jac. I, commenting upon that statute in 3 Inst. 184, says: 'The privilege must not be contrary to law; such a privilege as is consonant to law must be substantially and essentially newly invented, but if the substance was in esse before, and a new addition thereunto, though that addition make the former more profitable, yet it is not a new manufacture in law; and so was it resolved in the Exchequer Chamber. Pasch. 15 Eliz. in Bircot's case, for a privilege concerning the preparing and melting, etc., of lead ore, for there it was said that it was but to put a new button to an old coat, and it is much easier to add than to invent; and it was there also resolved, that if the new manufacture be substantially invented according to law, yet no old manufactures in use before can be prohibited.' This position was controverted by Lord Mansfield in Morris v. Bransom (1776), Bull. N. P. 76, c.; I Web. 51; I Abb. P. C. 21; and by Buller, J., in Boulton v. Bull (1795), 2 H. Bl. 463 (488); 1 Abb. P. C. 59 (83), and the error attributed to the ignorance of the age concerning the true nature of an invention, since which decision the patentability of an improvement as well as an original invention has been generally recognized.

"For further classifications of patentable inventions under the English law, see Godson, 58; Holroyd, 33; Web. Law and Prac. Supp. 1, etc.; Coryton, 57; Norman, 7; Lund, 6; Morgan v. Seaward (1837), 1 Web. 187; 2 Abb. P. C. 419."

When the independence of this country was established, in adopting the Federal Constitution our forefathers provided that:

"Congress shall have power * * * to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

Article 1, Section 8.

It is reasonable to assume that in drafting this provision our forefathers had in mind the English statutes regarding the grant of letters patent for inventions and the decisions of the English courts construing such statutes, and we find that in the Act of Congress of 1790 the English statute was utilized as a pattern. This Act of 1790 is substantially the present law in so far as its statement of the subjects for patents is concerned, as it provided for the grant of letters patent to anyone who had produced

"Any art, manufacture, engine, machine, or device or any invention or improvement upon, or in any art, manufacture, engine, machine or device."

This Act contained a more specific reference to machinery than the present statute, as it contained both the terms "engine," "machine" and "device," all relating to the same class of inventions and all in fact covered by the word "machine," and we also find the inclusive term "manufacture" in the statute.

No question ever arose under this statute of 1790 as to the exclusion of any kind of a "machine" from patentability because of the use of the specific and limited terms or words "engine" or "device"; yet all machines are not necessarily "engines" and all "engines" might most properly be termed "devices"; there was never any question that the use of the words "engine" and "device" in this section of the statute limited the term "machine" as used therein. Why then should the use of the term "machine" or the term "composition of matter" be held to limit the meaning of the term "manufacture" as used in this section of the statute? And if it be a limitation what limitation does it show? In what manner has Congress by the use of the terms "machine" and "composition of matter" shown an intent to limit the meaning and scope of the term "manufacture"? No answer to these questions is apparent from the act itself, and none from the subject-matter or purpose. It is much more consistent with the spirit of the Constitution and with the purpose of the patent statutes, to hold that these terms are not terms of limitation but are intended to most broadly embrace all subject-matters which can be brought within their ordinary or common meaning, or within the ordinary meaning of any one or any two of the terms.

By the Act of 1793 this section was amended so as to enumerate the patentable subjects of invention, as "Any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter."

Thus this Act of 1793, while adding "composition of matter" to the patentable subjects, omitted the specific terms "engine" and "device" of the Act of 1790. In this connection it is well to observe that there has never been any question but that an engine was a "machine" within the meaning of the statute and likewise that a "device" was a "machine" or in some case might be a "manufacture." The reports of the decisions of the Federal Court teem with cases in which patents for "engines" and "devices" have been sustained, although these terms were dropped from the statute by the Act of 1793. This amendment was not for the purpose of limiting the scope of the statute but for the purpose of making it more inclusive and more comprehensive, and this is particularly apparent from the inclusion of the new class of inventions, i. e., "composition of matter."

These two statutes also show us that Congress by this amendatory Act of 1793 endeavored to express the classes of invention, for which the grant of letters patent was to be authorized, *in the most comprehensive terms* available. Generic and all embracing terms were used, eliminating the words of specific and limited meaning. This is believed to be the true meaning of the revision of this section of the statute by the Act of 1793 and the omission therefrom of the specific terms "*engine*" and "*device*," leaving these subject-matters covered and embraced within the terms "machine" and "manufacture." This also shows the intent of Congress in using these terms "machine" and "manufacture" to use such terms in their broadest signification. Evidently Congress intended the statute to cover all useful discoveries and inventions which promoted the progress of science or the useful arts, without regard to which of the sciences or applied arts the discovery or invention appertained. By subsequent amendments the test of *novelty* has been changed, but the kinds of inventions for which the grant of letters patent is authorized, remain the same.

In connection with the Acts of 1790 and 1793, we desire to emphasize the fact that in the earlier and first Act Congress provided first, that any art should be pat-The word "art" covers processes, not prinentable. ciples. Next, Congress provided that any "manufacture" should be patentable, and then provided specifically that any engine, machine or device should be patentable. In revising this section by the Act of 1793 Congress omitted the term or word "engine" and the term or word "device" and rearranged the order in which the classes of invention were set forth in this section. The class "art" still remained first and foremost; the term "machine" was made second; then followed the very general term "manufacture," followed by the new class of invention, "composition of matter," first made patentable under this act. It is submitted that this shows an intention on the part of Congress to use the term "manufacture" as much broader than the term "machine," although necessarily including machines, for clearly a machine or an engine or a device are manufactured articles and included within the term "manufacture." It is to be noted that there are no words of qualification as to what kind of a manufacture or of what materials the manufacture must consist in order to be patentable, nor must the manufacture be made by machinery, but the statute provides that all manufactures are patentable *if they possess the necessary and requisite novelty*. In other words, if they are in fact material steps in the progress of any of the sciences or useful arts.

One of our foremost text writers, Mr. Walker, in his treatise upon Patents (4th Ed.), refers to the fact that the term "*manufacture*" includes machines, and says:

"The distinction between a machine and a manufacture cannot be so stated that its application to every case would be clear and satisfactory to every mind. The same remark is true of the distinction between manufactures and compositions of matter. In most instances, however, when something is invented by the mind and constructed by the hand of man its classification under some one of these heads is sufficiently obvious. If an inventor is certain that his invention belongs to one or another of the three classes of things, but is uncertain as to which, no evil need result from the doubt. No inventor needs to state or to know whether the thing he has produced is a machine, a manufacture, or a composition of matter, provided he knows that it is one or the other of these. A seventeen-year patent may be lawfully granted for a thing which falls under either designation, but it never becomes vitally important to determine to which one of the three classes a particular thing really belongs."

Walker on Patents, Sec. 19.

It is therefore immaterial whether the Holmes invention is a "manufacture" or a "machine" within this statute. We shall, however, consider whether it is either or both. As we shall hereinafter point out it is exceedingly difficult to state that the combination of some of the claims do not fall within both these terms "manufacture" and "machine" as used in this section of the statute.

The Act of 1836 provided for the grant of letters patent to any person who discovered or invented

"Any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture or composition of matter."

The Act of 1870 provides for the grant of letters patent for

"Any new and useful art, machine, manufacture or composition of matter," or any new and useful improvement thereof." (R. S. U. S. 4886.)

In 1842 Congress provided for the grant of "design" patents. Act of Congress of 1842, section 3. This statute provided for the grant of "design" patents for:

"Any new, any original design for a manufacture, whether of metal or other material or materials, or any new and original design for the printing of woollen, silk, cotton, or other fabrics, or any new and original design for a bust, statue or basrelief or composition in alto or basso relievo, or any new and original impression or ornament, or to be placed on any article of manufacture, the same being formed in marble or other material, or any new and useful pattern, or print, or picture, to be either worked into or worked on, or printed or painted or cast or otherwise fixed on, any article of manufacture, or any new and original shape or configuration of any article of manufacture." The "design patent" law at present in force is section 4929 of the R. S. U. S., and provides for patents for a design for "a *manufacture*, bust, alto relievo, or bas-relief," etc.

The attention of the court is particularly called to the words used in this statute. The word "manufacture" clearly covers all the other things specified in the statute, yet Congress specifically names certain specific manufactures and cannot be interpreted as meaning to exclude all others. In this section 4929 the term "manufacture" is used in its same general and comprehensive meaning as in section 4886, and it is significant that both special and specific terms are used as well as the comprehensive term "manufacture." There has never been any question but that section 4929 authorizes the grant of letters patent for designs for stoves, newel posts, harness, bedsteads, fixtures, and all manufactured articles, whether produced solely by hand or solely by machinery or by both. The construction thus put upon this section of the statute should be a guide in interpreting section 4886. A monument such as was before the court in Crier v. Innes is a building. The design for anything which is manufactured is comprehended within the statute. Why then is not anything that is manufactured comprehended within section 4886? Care should be taken not to confound the question of patentable novelty and the question of whether, if it be an invention and new, a given subjectmatter is the proper subject of a patent under the statute.

Mr. Robinson, in his work upon Patents, says:

"Before our patent system was established, the line was also clearly drawn between those results of the inventive act which constitute the proper subject-matter of a patent, and those to which the law gives no protection. The English statute groups the former under the general name of "manufacture," but this was early held to include not merely a vendible product of inventive skill, but also a method of applying physical forces to the production of physical effects. Congress adopted the same ideas in its description of the inventions for which patents might be granted. It enumerates them as an art, a machine, a manufacture, a composition of matter, a design, and an improvement upon some art, machine, manufacture, composition of matter, or design."

"The admirable classification contained in the present American statute was not reached without previous futile endeavors to enumerate the objects covered by the spirit and purpose of the law. the act of 1790 they were described as an 'art, manufacture, engine, machine, or device, or any improvement thereon.' The terms here employed were evidently chosen without reference to their exact meaning, and have a remarkable correspondence to some of those then current in the English courts. The words 'engine' and 'device' convey no idea not embraced in 'manufacture' and 'machine,' and no phrase is introduced which clearly covers a substance formed by the intermixture of ingredients, though this could have been here, as it was in England, included under 'manufacture.' During the interval between this act and that of 1703, the matter was sufficiently elucidated to enable Congress in the latter act to specify the great classes of inventions, according to their radical distinctions, and to arrange their statement in an order expressing their scientific relations to each other-a classification unsurpassed by that of any other patent system. and probably, in the very nature of things, incapable of improvement."

Rob. on Pats., Vol. 1, Sec. 69.

In section 183, Vol. I, referring to the inventions embraced within the title or class of "manufacture," Mr. Robinson says:

"The species of inventions belonging to this class are very numerous, comprehending every article devised by man except machinery upon the one side, and compositions of matter and designs upon the other. Thus the parts of a machine considered separately from the machine itself, all kinds of tools and fabrics, and every other vendible substance which is neither a complete machine nor produced by the mere union of ingredients, is included under the title 'manufacture.' The mechanical effects which they are intended to produce are of all varieties, from the simple interruption of the action of natural forces to the direction and application of forces artificially developed. In this wide field of inventions many articles must, of course, be found lying so close to the dividing line that doubt may well arise whether they do not more properly belong to the class which follows or precedes it; but even here careful attention to the exact idea of means which the inventor has intended to express will usually remove all ambiguity."

Having thus ascertained the origin of the section of the patent statutes which sets forth subject-matters for which the grant of letters patent is authorized, and having found that these terms were used in 1793, plaintiff submits that the terms used in such section must be read in the light of the meaning of such terms in 1793. It is clear that the term "manufacture" was derived from the Latin "manus," meaning "hand," and "facere," meaning "to make," and that the original meaning was that which was made by the hands of man. It now includes whatever is made by the hands of man, either with or without the aid of machinery, and whether from entirely raw or natural materials or from materials which have themselves been manufactured or converted into form or condition suitable for use in the particular manufacture inquired about.

Undoubtedly a board, a shingle, a lath, or a beam is a manufactured article, or a "manufacture" within this statute. The tree from which these are manufactured is the natural product, and if the board, lath, shingle or beam were novel it would be patentable as a "manufacture." So likewise anything made from or with these boards, beams, laths or shingles is a manufacture within the meaning of the statute and is patentable if it will stand the test of *newness or novelty*. In other words, if it be an invention and not an old and well known thing. This has the approval of the Supreme Court of the United States, in the case of *Murphy v. Arnson* (96 U. S. 131), in which the court says:

"Bouvier thus defines the word 'manufacture': 'The word is used in the English and American patent laws. It includes machinery which is to be used and is not the object of sale, and substances (such, for example, as medicines) formed by chemical processes when the vendible substance is the thing produced, and that which operates preserves no permanent form.' 'It includes any new combination of old materials constituting a new result or production in the form of a vendible article, not being machinery. The contriver of a new commodity which is not properly a machine or a composition of matter can obtain a patent therefor as for a new manufacture. And, although it might properly be regarded as a machine or a composition of matter, yet if the claim to novelty rests on neither of these grounds, and if it constitutes an essentially new merchantable commodity, it may be patented as a new manufacture.' "

It is true that the case of *Murphy v. Arnson* involved an interpretation of the tariff laws and was not a patent suit, that no construction of the patent statute was directly involved, and that the foregoing quotation was given as an authority showing the true meaning of the word "manufacture" as used in the tariff law; but it is to be noted with care that this is not *obiter dictum;* it was directly pertinent to the exact question before the court and was the opinion of the Supreme Court as to the true meaning of the word "manufacture" which was the thing necessarily decided by the Supreme Court. In discussing the question of "*obiter dicta,*" *Black on Interpretation of Laws*, at page 395, says:

"The test is whether the statement made was necessary or unnecessary to the determination of the issues raised by the record and considered by the court."

The Supreme Court, therefore, in this *Murphy v. Arnson* opinion, has decided that Bouvier has given the true and correct meaning of the term "manufacture" as used both in the tariff laws and patent statutes, for it is the true interpretation to give words of common use their plain, natural, obvious and ordinary signification and import.

> Kent's Comm. 462; Martin v. Hunter's Lessee, 14 U. S. 326.

The meaning of this term "manufacture" was directly in issue in the *Murphy v. Arnson* case, and the decision of the court upon the meaning of the term is an authority, not an obiter.

In Johnson v. Johnston (60 Fed. 618) Circuit Judge Acheson says:

"The term 'manufacture,' as used in the patent law, has a very comprehensive sense, embracing whatever is made by the art or industry of man, not being a machine, a composition of matter, or a design. Curt. Pat., Sec. 27; I Rob. Pat. Sec. 183. In Waring v. Johnson, 6 Fed. 500, letters patent for an improvement in pocket check books were sustained by Judge Blatchford; and in Norrington v. Bank, 25 Fed. 199, Judge Colt sustained a patent whose subject-matter was of a like nature. In Dugan v. Gregg, 48 Fed. 227, a combined book and index so connected as to facilitate the more ready and convenient handling thereof, was held to be a patentable improvement by Judge Coxe, who, also, in Carter & Co. v. Wollschlaeger, 53 Fed. 573, upheld a patent for an improvement in duplicate memorandum sales slips, following a decision of Judge Colt in Carter & Co. v. Houghton, 53 Fed. 577, sustaining the same patent. In Thomson v. Bank, 3 C. C. A. 518, 53 Fed. 250, the United States Circuit Court of Appeals for the Eighth Circuit sustained a patent for a bank account book, the improvement consisting in a suitable number of full leaves and alternate series of short leaves, each of the latter being creased or perforated for folding in such a manner as to transfer the column of balances on the right-hand page to the succeeding lefthand page. I have no difficulty in holding that the subject-matter of the patent in suit is patentable."

And in the case of *Crier v. Innes*, the Circuit Court of Appeals for the Second Circuit (Circuit Judges Lacombe, Ward and Noyes), had before it a patent issued for a design for a sarcophagus monument consisting of a built-up structure of four parts. It was contended by the defendant that this was not a "manufacture" within the statute (R. S. U. S. 4929), but was merely an architectural design and not patentable, and the lower court so held. In reversing this decree and sustaining the patent, the court said:

"It is next contended that the patent is invalid because it relates to a monument which is not 'a manufacture' within the meaning of the design patent statute. Rev. St. Sec. 4929 (U. S. Comp. St. 1901, p. 3398). We think this contention not well founded. A monument is manufactured, and in our opinion is a 'manufacture,' and not—as urged by the defendants—a species of architecture. It comes within the dictionary definition of the former term, and, if we go beyond that and look at trade usage, we find in the present record the defendants' own witnesses describing themselves as monument 'manufacturers' and speaking of 'manufacturing' monuments. For these reasons, we hold the patent valid and infringed."

Crier v. Innes, 170 Fed. 324-326.

In *Black's Law Dictionary* the term "manufacture" is defined:

"In Patent Law. Any useful product made directly by human labor, or by the aid of machinery directed and controlled by human power, and either from raw materials or from materials worked up into a new form."

In Am. & Eng. Enc. Law, Vol. 19 (2nd Ed.), it is stated:

"The word 'manufacture' has been defined as the 'process of making anything by art or of reducing materials into form fit for use by hand or machinery." (Langraf v. Kuh, 188 Ill. 495; Atty. Gen. v. Lorman, 59 Mich. 164.) Also, anything made or manufactured by hand or manual dexterity, or by machinery; to form by manufacture or workmanship by the hand or by machinery; to make by art and labor."

The Supreme Court of Pennsylvania in 1856, in Norris v. Commonwealth (27 Pa. St. 494, 496), says:

"But what is manufacturing? It is *making*. To *make* in the mechanical sense does not signify to create out of nothing; for that surpasses all human power. It does not often mean the production of a new article out of materials entirely raw. It generally consists in giving new shapes, new qualities, or new combinations to matter which has already gone through some other artificial process."

The Supreme Court of Illinois in Landgraf v. Kuh (188 Ill. 484), says:

"The word 'manufacture' has been defined as 'the process of making anything by art or of reducing materials into form fit for use by hand or by machinery.' While the original meaning of the word 'manufacture' is to make with hand, the definition of the term is not confined to this original signification. Manufacturing generally 'consists in giving new combinations to matter which has already gone through some other artificial process.' (Citing Norris v. Commonwealth, 27 Pa. St. 494; Shriefer v. Wood, 5 Blatch. 216, and Bouvier's Law Dictionary; Murphy v. Arnson, 96 U. S. 134; City of New Orleans v. LaBlanc, 34 La. An. 597.)

"Now, nearly all artificial products of human industry, nearly all such materials as have acquired changed conditions or new and specific combinations, whether from the direct action of human hand, from chemical processes devised and directed by human skill, or by the employment of machinery * * are commonly designated as 'manufactured.' (Carlin v. West. Assur. Co., 57 Md. 526.)" District Judge Hall, in the Southern District of New York in 1864, in *Schriefer v. Wood* (5 Blatchf. 215), says:

"It is argued, in behalf of the plaintiffs, that there is an obvious distinction between a mere natural product and a manufacture; that the latter involves the idea of a series of natural processes and of the results of the art and ingenuity of man; that this distinction is recognized by all the lexicographers, in their definition of the word 'manufacture,' and, also, in the popular use of the terms 'manufacture' and 'manufacturer'; and that we do not call a woodsawer, or a miller, who merely grinds corn into meal, without bolting it, a manufacturer. It is true that we do not ordinarily call a wood-sawer a manufacturer, and that we do not usually term a miller, who simply grinds corn in his mill a manufacturer; but this is probably because the exact character of their business is more clearly expressed by the terms 'wood-sawer' and 'miller,' than by the more indefinite terms 'manufacturer of wood,' and 'manufacturer of corn meal,' and because their operations are quite limited. We do not ordinarily apply the term 'manufacturer' to one whose operations are as limited as those of a wood-sawer; but when great quantities of salable articles are produced, even by a single operation of a very simple machine, we frequently, if not ordinarily, speak of the operation as a manufacture. When large quantities of kindling wood are made by splitting blocks of wood by machinery adapted to that special purpose, we do not hesitate to speak of it as a manufacture of kindling wood; and an establishment where very large quantities of bone dust are produced by machinery, would, by many, in ordinary conversation, be termed a manufactory of bone dust. We speak of the manufacture of salt, when it is produced by the simple operation of boiling, or by solar evaporation, and when any article of manufacture, having a distinct name in the trade and commerce of the country, is produced by machinery, or by a chemical process, from any material or materials having a different commercial name from the article produced, we may generally speak of the operation by which it is produced as a manufacture.

"If we look at the definition of the term manufacture, both as a noun and as a verb, given in our standard dictionaries, it will be seen that the definitions are broad enough to include the manufacture of bone dust and bone black, when produced in the modes adopted by the plaintiffs. Among the definitions given by Webster, are: (1) 'The operation of reducing raw materials of any kind into a form suitable for use, by hand, by art, or by machinery'; (2) 'Anything made from raw materials by the hand, by art, or by machinery'; (3) 'To make or fabricate from raw materials by the hand, by art, or by machinery, and work into forms convenient for use'; (4) 'To work raw materials into suitable forms for use.' Worcester has the same definitions, in substance, and similar definitions are found in other dictionaries. 'Bone dust' and 'bone black,' with the proper definitions, are found in both Webster and Worcester, and in other modern dictionaries, and they are known in trade by these distinctive appellations.

"Whether we look to the popular use of the term "manufacture," or to its definition as given by our best lexicographers, as the proper guide to the intention of the Act of Congress, it is clear that the plaintiffs were properly charged with taxes on bone dust and on the bone black, as the manufactures of bone.

"The exception of 'charcoal,' on which the plaintiffs rely, to excuse them from the payment of taxes on the bone black or animal charcoal, is also evidence that the production of charcoal from wood, and of other articles of merchandise, by a single and simple process, was deemed a manufacture; for if charcoal would not have been chargeable with duty if no such exception had been made, there was no necessity for such an exception. Tinkham v. Tapscott, 17 N. Y. 141.

"This popular use of the word should doubtless be most influential in determining the interpretation of the language exception, for, in the interpretation or construction of statutes, words of common use are to be taken in their natural, plain, obvious and ordinary signification and import." Kent Comm. 462, Martin v. Hunter's Lessee, I Wheat (I4 U. S. 304, 326; Rex v. Inhabitants of Turvney, 2 Bann & Ald. 522."

In Carlin v. West Assur. Co. of Toronto (57 Maryland 515, 526), the court says:

"But whilst, from its derivation, the primary meaning of the word 'manufacture' is making with the hand, this definition is too narrow for its present use. Its meaning has expanded as workmanship and art have advanced; so that now nearly all artificial products of human industry, nearly all such materials as have acquired changed conditions or new and specific combinations, whether from the direct action of the human hand, from chemical processes devised and directed by human skill, or by the employment of machinery, which after all is but a higher form of the simple implements with which the human hand fashioned its creations in ruder ages, are now commonly designated as 'manufactured.'

"Burrill defines 'to manufacture,' 'the process of making a thing by art,' and cites Butler, J., in 2 H. Bl. 463, 471. Abott gives its meaning as 'whatever is made by human labor, either directly or through the instrumentality of machinery.' The definition in Webster is 'To make or fabricate from raw materials by the hand, by art or machinery, and work into forms convenient for use.' Worcester has in substance the same definition. A case directly applicable is that of Schriefer v. Wood, 5 Blatch. 215, in which animal charcoal, produced by the process of burning bone, in the same manner that wood is exposed to the action of fire, to produce common charcoal, and bone dust produced by pulverizing or grinding bones, are decided to be 'manufactures of bone.' "

The Standard Dictionary defines to "manufacture" as:

"To make or fashion by working on or combining material; form or produce by some industrial process; fashion by hand or machinery, especially when done in considerable quantities and as a regular business, as to manufacture cotton goods—to manufacture furniture."

The Standard Dictionary also quotes the following as an illustration of the use of the word "manufacture":

"On a little elevation a half mile outside the walls (of Jaffa) is a cluster of wooden houses which were manufactured in America."

The Century Dictionary, under the title of "manufacture" as a noun, thus defines the meaning:

"Anything made from raw or prepared materials."

In Lawrence v. Allen (7 How. 785, 794), in a case involving import duties, the Supreme Court says:

"Going to more technical definitions and to first principles, such a process to make the shoe is making an article by the hand, which was once the liberal meaning of the word 'manufacture,' or *manu factum*, and in the more modern idea attached to the word, it is making an article, either by hand or machinery, into a new form, capable of being used, and designed to be used, in ordinary life."

And in *Hartranft v. Wiegmann* (121 U. S. 609), the Supreme Court says:

"We are of the opinion that the decision of the

Circuit Court was correct. But, if the question were one of doubt, the doubt would be resolved in favor of the importer, 'as duties are never imposed on the citizen upon vague or doubtful interpretations.'"

In American Steel & Wire Co. v. Denning Co. (169 Fed. 413), the Circuit Court of Appeals for the Eighth Circuit says:

"The validity of a patent for a product or structure is not affected by the process or means by which it is made or whether it is made by *hand* or machinery."

In the new work entitled "Words & Phrases," under the title "manufacture" is found the following:

"Lexicographers define 'manufacture' to be 'the process of making anything by art, or reducing materials into the form fit for use by the hand or by machinery.' Worcester's Dic., tit. 'Manufacture.' Mr. Brande defines 'manufacture' as a term employed to designate the changes or modifications made by art or industry in the form or substance of material articles with a view of rendering them capable of satisfying some want or desire of man, and 'manufacturing industry' to consist in the application of art, science, or labor to bring about certain changes or modifications of already existing materials. He includes under the term 'manufacture' all branches of industry with the exception of fishing, hunting, mining, and such industries as have for their object to obtain possession of material products in the state in which they are fashioned by nature. He says that the term is generally applied only to those departments of industry in which the raw materials is fashioned into desirable articles by art or labor without the aid of the soil, but that there is no real good reason for such limitation, and that it is obvious from the slightest consideration that agriculture is nothing but a manufacture, for the business of the agriculturist is to dispose of the soil, seed, manure, or other materials, that they may supply him with other and more desirable products. Brande's Enc., tit. 'Manufacture.' Evening Journal Ass'n v. State Board of Assessors, 47 N. J. Law (18 Vroom) 36, 38, 54 Am. Rep. 114.

"To 'manufacture' is to make; the operation of making whatever is used by man; anything made from raw material by hand, by machine, or by art. To 'traffic' is to trade, either by barter or by buying or selling; to trade; to pass goods or commodities from one person to another for an equivalent in goods or money, etc. Dr. Webster. The 'manufacture' of an article is one thing and the 'traffic' therein is another and distinct thing. An Act, Feb. II, 1853, entitled 'An Act prohibiting the manufacture of intoxicating beverages and the traffic therein,' expressly and in terms embraces by its title two distinct objects within the meaning of Const. Art. 4, Sec. 20, reading, 'No law shall embrace more than one object, which shall be expressed in its title.' People v. Collins, 3 Mich. 343, 385.

"Act, 1889 (P. L. 429, Sec. 21), exempting corporations exclusively for 'manufacturing' purposes from taxation on their capital stock, should be construed to include the building of bridges, as well as manufacturing their constituent parts. Commonwealth v. Pittsburg Bridge Co., 27 Atl. 4, 156 Pa. 507.

"The term 'manufactured article' includes anything which is changed by process of manufacture from its natural form. It is not necessary, in order to constitute an article a manufactured article, that a chemical change should be wrought in it. Hence, the term includes iron manufactured from iron ore; timber and lumber manufactured from logs; bone dust produced by the grinding of bones: staves, etc., manufactured from logs; and ice formed by natural process and changed by manual labor or machinery to a form adapted for sale and use. Attorney General v. Lorman, 26 N. W. 311, 313, 59 Mich. 157, 60 Am. Rep. 287. "The term 'manufactured articles' is used to designate any article made from other articles which by application of skill and labor have been so transformed as to become a different article of increased value. Radebaugh v. Plaine City, 11 Ohio Dec. 612, 613."

In French v. Carter (137 U. S. 239), the Supreme Court had before it the French patent No. 244,224, dated July 12, 1881, for an improvement in "roofs for vaults." Apparently the court and counsel for all parties conceded that such an improvement in a building was patentable as a "manufacture" and the court held the patent void because the construction was shown to be well known prior to Mr. French's invention. The report of this case shows drawings of buildings embodying the improvement sought to be held as novel but found by the Supreme Court to have been fully described and shown in a publication prior to Mr. French's invention.

In Sanitary Fireproofing Co. v. Sprickehoff (139 Fed. 801), Circuit Judges LaCombe, Wallace and Coxe, sitting as the Circuit Court of Appeals for the Second Circuit, held the Geraerdts patent, No. 555,693, for fireproof walls for buildings to be valid and infringed. One of the claims was:

"A fireproof wall, consisting of a series of thin plates or blocks, placed edge to edge and provided with grooves in their sides and ends, and registering mortises in the grooved edges thereof, and metallic tenons for connecting the plates or blocks at the sides and ends, substantially as set forth."

This was clearly a feature of building construction, and the thing covered by the patent was a portion of a building. Had such a construction been well known to architects and builders it would have required only architectural design and skill to make it, but as it was new and novel and not a part of the customs and traditions of architecture, it was patentable. On no other ground can the decision be supported.

This decision emphasizes the difference between the mere knowledge and skill of the architect and the production of an improvement in a building, involving the creative faculty known as "invention," and distinguished from the ordinary skill of one skilled in the art. It emphasizes the fact that while a mere architectural design or plan may not be patentable, yet a new combination improving building construction and not within the ordinary skill and knowledge of an architect or builder is the proper subject for letters patent under the patent statutes.

In Smead v. Union Free School District (44 Fed. 614) the Circuit Court for the Northern District of New York, letters patent No. 314,884, dated March 31, 1885, for "dry closets for buildings," were held valid and infringed. The claim was as follows:

"The combination, in a building, of a series of foul air ducts B, a gathering room C, a vault D, and a ventilating shaft E, with means substantially as described for creating a draft through the same, substantially as and for the purpose set forth."

This patent was also before the Circuit Court of Appeals for the Second Circuit, in Smead Warming & Ventilating Co. v. Fuller & Warren Co., 57 Fed. 626.

The extreme similarity to Mr. Holmes' combination, including the ventilation of the bed-receiving recess, is apparent. If this combination was patentable, upon what ground of lack of patentable subject-matter can Mr. Holmes' combination be differentiated? Take for example Mr. Holmes' tenth claim:

"A building comprising a room, a primary and a secondary floor arranged one above the other, stairs connecting the two floors, a room or rooms arranged above said secondary floor, a recess being between said floors communicating with the first mentioned room, a bed adapted to fit into and close said recess, and ventilating means for said recess."

This claim clearly is for the same kind of a combination, so far as patentable subject-matter be concerned. In *Jackson v. Nagle* (47 Fed. 703) Judge Hawley sustained the Jackson patent, No. 302,338, dated July 23, 1884, for "construction of buildings." The claims were as follows:

"I. In a building, the beam-riser forming the offset between the cover of the areaway and the sidewalk, having outwardly projecting flanges at the bottom to support a sidewalk, said riser having a vertical web of different depths, so that illuminating tiles or brick arches may be supported from the flanges and the surfaces be level or continuous, substantially as herein described.

"2. In a building, a beam-riser forming the step or offset between the areaway and sidewalk, and having the outwardly projecting flange at the bottom to support the illuminating tiles or sidewalk, and an inwardly projecting lug or flange at the top, upon which the areaway cover is secured, so as to lie flush with the nosing, substantially as herein described."

This decision was affirmed by this court in *Riley v*. *Jackson*, 56 Fed. 582, the court being composed of Circuit Judges McKenna and Gilbert and District Judge Hanford. As further illustrating the fact that the courts have, heretofore sustained patents which involved combinations embracing improvements in the construction of buildings, your Honors' attention is called to the case of *Jackson v. Western Expanded Metal & Fireproofing Co.* (112 Fed. 361), wherein Circuit Judge Morrow had before him the Jackson patent, No. 320,066, for improvements in *floor and sidewalk construction*. The claim was as follows:

"A floor consisting of beams, suspension strops fastened at the tops thereof, and curved down in the intermediate portion in the line of stable equilibrium."

This was clearly an improvement in the art of constructing buildings.

In New Jersey Wire Cloth Co. v. Merritt (96 Fed. 216) the court had before it the Orr patent, No. 456,202, dated July 21, 1891, for "fireproof building." The claim was:

"A fireproof ceiling consisting of metallic lathing extending from beam to beam and having upon its under side offsetting portions projecting from its body, and a body of plastic material applied from above and in which the body of the lathing and projections are embodied, substantially as described."

In sustaining the patent the court said:

"The claims under consideration are not for a kind of lathing, nor for the process of putting the lathing and material together, *but for a finished result—for a construction*, a thing built of two substances and intended to accomplish a defined result."

There can be no doubt but that this patent covered a building construction, and if it had been old and well known prior to Orr's invention, then it would have been within the ordinary knowledge and skill of an architect or builder and been a part of the known science of architecture, but *if it was novel, if it was unknown to architecture* until Orr produced it, it was patentable invention. The court found the combination was old and well known, was a part of the art before Orr produced it.

In Simpson v. Davis (12 Fed. 144) the court sustained the validity of the Textor design patent No. 12,026, dated November 9, 1880, for a "newel post." This was simply and solely the ornamental scroll, head, and roses or rosettes upon the post. If anything could be architectural it is the design of a newel post. The most famous types of architecture are distinguished by the forms of pillars and pilasters and the manner of ornamentation-to-wit: the Corinthian, Ionic, Doric, Roman, Composite, Gothic, Arabic and Egyptian. These were known forms of ornamentation and were architectural design. The Textor post would have been architectural design but for the fact that it contained a design which was unknown to architecture. The design was novel. It was patentable because novel. This emphasizes, again, the difference between architectural design and patentable novelty. If the thing be known to architecture, it is architectural design and it is not patentable; if it be unknown-in other words an improvement not within the ordinary knowledge of an architect -it is an invention and patentable as an improvement and is not an architectural design because unknown to the science of architecture-not within the ordinary skill and knowledge of the architect.

In Buffington's Iron Building Co. v. Eustis (65 Fed. 92; on appeal 65 Fed. 804), the courts had before them the Buffington patent, No. 383,170, granted May 22, 1888, for "improvements in iron building construction." The claims involved were:

(7) "In a building frame, a series of continuous framing posts, composed of metal plates secured with their flat sides together, and breaking joints, in combination with girts and tie-beams secured thereto at each floor, substantially as set forth."

(8) "The combination, with the laminated posts, of the continuous girts secured thereto, and the tie-beams, also secured thereto and to one another, substantially as set forth."

(13) "The combination, with the posts and girts, of the angle plates connecting them, and forming supports for the veneer shelves."

The court referred also to patents to Butz; Sisson & Wetmore; Fryer, and Hardy, showing different constructions of buildings, and held the Buffington patent not infringed, but raised no question but that it covered a subject-matter patentable under our patent statute. This was conceded by both the Circuit Court and the Circuit Court of Appeals for the Eighth Circuit.

In *Winans v. Perring* (146 Fed. 133), Judges Lurton, Severens and Cochran, sitting as the Circuit Court of Appeals for the Sixth Circuit, had before them the King patents, numbers 389,817 and 507,439. While the court held the defendant had not infringed these patents, yet in arriving at the proper construction to be given to these franchises, no question was raised by the court or counsel for defendants but that the portable boat was a manufacture within the meaning of the patent statute and patentable as such.

There are many such instances in which patents for building constructions, portable boats, bridges and like structures have been sustained. But the foregoing would seem to be sufficient examples. In none of these were the patents objected to on the ground raised by the Honorable District Judge in this case, and it is surprisingly strange, if such constructions and combinations were not conceded by counsel and the courts to be patentable subject-matters, as "manufactures," that such objection was not raised in some of these cases. We submit that these cases show at least that the consensus of opinion both of the bar and of the courts is that these subject-matters are "manufactures" within the patent statute and patentable as such, if novel within the tests of the statute. It is indeed most wonderfully surprising that the Commissioner of Patents of the United States should have continuously from 1700 to 1010 granted and issued patents for buildings and building construction, if such were not authorized by statute.

This is emphasized by the fact that between 1790 and 1910 many different lawyers have occupied the position of Commissioner of Patents, and each, in his turn, has continued the grant and issue of letters patent upon buildings and building constructions.

In the United States Patent Office letters patent have been classified with relation to their subjects. These classifications have been for two purposes, *i. e.*, to determine to which examining division of the patent office shall be sent for its examination an application for patent upon a given subject-matter or in a given art, thereby ensuring the examination by the most skilled and best informed examiners in the respective arts; and second, to render available to the examiners of the patent office the several patents which pertain to given subject-matters, and thus make readily available to them the prior art in such given line, minimizing the labor of examining as to the newness or novelty of a claimed invention, and ensuring that the examiner will find all prior patents and structures which pertain to a particular art or subject.

The history of these classifications, revised as they have been from time to time to keep pace with the advancement of the respective arts, shows that the grant of letters patent for buildings and building constructions has not been inadvertent and accidental, but that on the contrary it has been well considered and has had the special attention of succeeding commissioners.

If we refer, for example, to the "Classification of Inventions" as the same was established in 1893 in the United States Patent Office, we find: Div. IV, class 183, "Fireproof Buildings"; Class 189, "Iron Structures"; Class 72, "Masonry"; Class, 14, "Bridges"; Class 200, "Towers"; Class 159, "Fire Escapes." In Division XXIX, Class 20, "Carpentry."

In the revision of the classification made in 1895 we find the same classes.

In 1898 Congress passed an Act (approved June 28, 1898) specifically providing for a revision of the classification.

We call particular attention to an official letter or report under date of March 4, 1899, from the Chief Examiner of the Classification Division of the Patent Office, created under this Act of 1898. This letter shows what detailed consideration was given to the matter and peculiarly emphasizes the fact that patents for wooden buildings and building constructions were granted deliberately and not inadvertently. The letter is produced by authority of Congress in the "Supplement" to Vol.

91 of the Official Gazette of the United States Patent Office. We quote a portion:

-"NEW CLASSIFICATIONS.

Department of the Interior,

United States Patent Office,

Washington, D. C., March 4, 1899.

Hon. C. H. Duell,

Commissioner of Patents:

Sir: The Class '20—Wooden Buildings'—submitted herewith, is the first of the new classification, and the principles upon which it is based will be applied in treating other classes, which will be submitted from time to time as they are completed. I therefore recommend that the following explanation of the methods employed be published, with the list of sub-classes and their definitions, for the benefit of the examiners and others who may be required to make searches therein. * * *

Very respectfully,

FRANK C. SKINNER,

Chief of Classification Division.

Approved March 4, 1899.

C. H. DUELL,

Commissioner of Patents."

Under date of March 1, 1899, the old Class 20 "Carpentry" was abolished and new Class 20 "Wooden Buildings" established. This class also included sub-classes "Doors," "Floors," "Scaffolds," "Windows" and "Miscellaneous Wooden Buildings," and the definition given of this Class 20 was:

"20. Wooden Buildings. The construction of wooden

buildings and such accessories as are found in buildings generally; also, scaffolds used in connection with building construction. *Iron structures* and *masonry* are elsewhere classified."

Space will not permit a complete analysis and history of the classification, but the foregoing will serve to illustrate the deliberation with which the classification has been made and from time to time amplified, and shows that the commissioners have judicially determined, after careful and deliberate consideration, that buildings and building construction are patentable under the statute if they possess the necessary *newness or involve invention as distinguished from the ordinary skill of the person skilled in the art to which they appertain.*

The Supreme Court, in Agawam Woolen Co. v. Jordan (74 U. S. 178), has clearly stated the weight to be given to the circumstance that the Commissioner of Patents has granted the patent. It says:

"Application for patent is required to be made to the Commissioner of Patents appointed under authority of law, and inasmuch as that officer is empowered to decide upon the merits of the application, his decision in granting a patent is presumed to be correct."

See also:

Union Sugar Ref. Co. v. Mathiesen, 2 Fish. P. C. C. 600.

From 1790 up to February 14, 1910 there have been granted through the United States Patent Office over thirteen thousand five hundred patents upon buildings and building structures. The chief clerk of the U. S. Patent Office, under date of February 14, 1910, states that the approximate number of patents in each of the following named sub-classes is as follows:

Class 189: "Metallic Building Structures." Number of patents, 2,646.

Class 20: "Wooden Buildings." Number of patents, 6,406.

Class 72: "Masonry and Concrete Structures." Number of patents, 4,463.

As an inventor pays the government a fee of \$15.00 upon filing each application for patent, and a fee of \$20.00 upon the issue of a patent, it is thus seen that the enormous sum of *four hundred thirty-eight thousand two hundred twenty-five* (\$438,225.00) dollars has been received by the United States government from the issuance of this class of patents alone!

If the grant of patents for such subject-matter had been only occasional and infrequent it might perhaps be argued that such action by the Commissioners of Patents might have been inadvertent or accidental, but the vast number of patents so granted shows conclusively that the Commissioners of Patents have judicially, considerately and repeatedly construed the term "manufacture" as used in the patent statutes to cover building constructions, and have invariably held that when such a construction was novel, a patent would be granted therefor. What *reason* is there for holding otherwise? If an improvement in the construction of buildings be novel, on what ground should patentability be denied it?

If the court holds that such subject-matter is not within the statute, then the government has accepted from inventors the sum of \$438,225 in "patent fees" for which it has given no return, and has in fact defrauded inventors out of this sum of money. These figures show the importance of a correct interpretation of the statute and the importance of the matter submitted for determination. The decision of this case will affect thousands of patents and thousands of inventors who have paid their money to the government in good faith.

If the protection of the patent monopoly be at this late day withdrawn from this most valuable and most important field of human interest and industry, investments of immense capital now engaged in the introduction and manufacture of patented buildings and building constructions will be practically confiscated, for such investments have been made in reliance upon the long continued policy of the patent office to grant and the courts to sustain patents for buildings and building constructions; such a determination and interpretation of the patent statute at this late day will remove the constitutional and statutory incentive for improvement in the habitations of man. Improvement, having for its primary object the more convenient and economical arrangement of our homes and the material lessening of the labor of our women in maintaining the homes, will go unrewarded, and, as shown by history, there will be no further improvement in these lines. We make this last statement for the reason that the records show us that it is not the architect who invents improvements in such conditions or constructions. Mr. Holmes was not an architect; not a builder; but his inventive genius led him to recognize the need and showed him the solution, the extremely meritorious economy of space, economy of labor, and economy of material, together with the sanitary features, of the combination covered by the patent in suit.

There is a material difference between architecture as an art and the architectural thing. No one would say that the science of mechanical engineering, or the science of mining engineering, or the art of printing, chemistry or the electric current or electrical art was per se patentable. But newly invented things in any of these arts are patentable. The real question is not to what art does a given thing belong. That is immaterial. The Constitution and Congress intended that any improvement in any art, in any manufacture, in any machine, or composition of matter, should be patented provided its production required more than the ordinary skill of the person in the particular art to which it belonged and provided it was novel within the tests of novelty set forth in the statute. It may pertain to architecture, electricity, pneumatics, hydraulics, chemistry or any of the sciences. The real question is, was it a discovery or invention within the tests as to novelty or newness, or was it within the knowledge of one skilled in the art to which it appertains? If it added to the knowledge of the architect, the chemist, the mechanical or electrical engineer, or added a material thing to any of the sciences, it makes no difference to which science. Its patentability does not depend upon its pertaining to the mechanical art. Its patentability does not depend upon its belonging to the chemical art. Nor to the electrical art. Then why is it barred if it pertains to and adds to the art of architecture? Where in the patent statutes is there any reservation of any one art, or exclusive of any one art, improvements in which shall not be patentable? Does not the statute include all arts alike?

Is it not hollow mockery to say that the fireproof arch, or the fireproof wall, which forms a material part of the building, is patentable as a manufacture, and yet another part of the building is not patentable—is not a manufacture? If one part is patentable as a manufacture, why not the whole? Is a part greater than the whole?

Is it not absurd to hold that the formation of the beams and risers and their combination with each other may be patented as a manufacture, and yet the building of which they form a material and indispensable part, is not a manufacture?

Where does such reasoning lead us?

Is not the true question solely, Does the supposed improvement (in whatever art or science) involve invention as distinguished from mere mechanical skill? Is architectural design anything more or other than the ordinary skill of the architect? Why is it any different in a patent sense than the ordinary skill of a mechanic skilled in some other art or science? The ordinary skill of the chemist is not patentable, but the invention of a new chemical compound or the utilization of a new principle of reaction is patentable. But the particular art or science does not make it patentable.

It is well known that the building art has been much advanced, if not revolutionized, by the re-inforced concrete constructions now in general use. Were none of these, when new, patentable? Are all the patents issued for improvements in re-inforced concrete constructions void? Such result necessarily follows from holding that a building construction is not patentable.

We have heretofore seen that the term "manufacture" as used in the English statute is used in its most comprehensive sense to include not simply all things which are made but also all processes and arts of making things or utilizing things. In the section of the American patent statutes under consideration four terms have been used to include what is included in the English statute in one term and a more definite test of newness provided, but there is nothing in the statute which shows any intention to exclude any particular art or science from being the proper subject-matter of a patent. It seems to be the consensus of opinion that a building or building construction is a patentable subject-matter. In this connection we call the court's attention to the foremost authority on patent law, Walker on Patents (4th Ed.), Sec. 17, in which it is stated:

"The word 'manufacture' has a much narrower signification in the American patent laws than it has in those of England. In the latter it includes everything made by the hand of man, and also includes processes of manufacture. According to the former, processes are patentable because they are arts, while some of the things made by the hand of man are patentable as machines, and some others are patentable as compositions of matter, and some others are patentable as designs. Whatever is made by the hand of man, and is neither of these, is a manufacture, in the sense in which that word is used in the American patent laws. The term should be held to justify a patent for the invention of a new and useful human habitation, or a new and useful improvement of such a structure. This statement is ventured, notwithstanding the facetious obiter dictum of Justice Grier in the jail case."

"The difficulty still exists, however, under which category of the Patent Act an improvement in the construction of jails is to be classed, or whether under any.

"But waiving all these difficulties as hypercritical, and assuming the correctness of the positions taken, that whatever is neither a machine nor a manufacture, nor a composition of matter, must (ex necessitate) be 'an art'; that a jail is a thing 'made'; and that the patent is for the 'process of making it.' Let us examine the case as presented by the bill and answer.

"The record presents no question of law as to the construction of these patents. * * * It could never be a precedent in any other case."

Jacobs v. Baker, 7 Wall 297.

It is thus distinctly seen that the court did not decide the question, but, at least for the sake of the case before it, conceded the correctness of the issuance of the patent as a patentable subject-matter under the patent law, but held that the patent was void. And we are not surprised that the court held the patent void. The patent simply covered a most simple and ordinary expedient which would readily suggest itself to anyone skilled in the building art. Prior to the patent, jails had been constructed with an outside window to a given cell, the cell having its three sides composed of an iron grating, the wall of the jail, having a window, forming the fourth side of the cell. The construction attempted to be held was simply forming the cell of four walls of iron grating all separated from the window of the jail and forming a corridor between the walls of the building and the cell, so

that the jailer or custodian could walk entirely around the cell. In other words, building a cell of four walls of grating in the center of the room and providing space all around the cell. It would thus be necessary for a prisoner to first cut through the iron grating before he could have access to the grating of the window—in other words, forming a thing with four sides like what had been used with three sides theretofore. There was no inventive ingenuity expressed in this.

If we compare this, however, with the opinion of the Supreme Court in *Murphy v. Arnson, supra*, we find that in the latter decision the court did construe the meaning of the term "manufacture" and did give it such a construction as to include within it anything which is made by the hand of man or by machinery, and quoted Bouvier's definition and adopted and applied it. We also find the direct and deliberate opinion and decision of the Circuit Court of Appeals for the Second Circuit in *Crier v. Innes* deciding that a building is a manufacture within the patent statute.

It is stated in the work entitled "History of Congress," (apparently the forerunner of the Congressional Record), which contains the proceedings in Congress in 1793, that in the House of Representatives, while that body was considering an amendment (*Act of* 1793, *before quoted*) to the Act of 1790, entitled: "An Act to promote the progress of useful arts," "Mr. Williamson, adverting to the principles of the bill, said it was an imitation of the patent system of Great Britain," and Mr. Murray said: "Without the aid of a general government, the genius of the American could not reap its

fruits, nor had the state governments given a fair occasion for the display of ingenuity which he believed existed in the country. * * * He thought that it was of consequence that no invention, however small or irrelative it might at first appear, should be lost. * * * A little reflection will teach us that whatever is great and astonishing in the works of art was humble in its origin, had been opposed by ignorance or cramped by poverty, and had become important but by gradual accumulation, and a very slow progression; and that the wisdom of government should be exerted in forming a repository, where nothing which might eventually be of service should be suffered to perish."

We submit that this shows that it was the intent of Congress in passing the Act of 1793 to provide for the patenting of all *new and useful* inventions or discoveries in whatever art, and that this intention of Congress is borne out by the use of the inclusive term "manufacture" in the statute. This is the interpretation placed upon the words of the statute in the debates in Congress.

James Fergusson in his work entitled "A History of Architecture in All Countries" says:

"A building may be said to be an object of architectural art in the proportion in which the artistic or ornamental purposes are allowed to prevail over the mechanical; and an object of engineering skill, where the utilitarian exigencies of the design are allowed to supersede the artistic." "Architecture is the most mechanical of the fine arts."

This statement coincides with plaintiff's understanding of what constitutes architecture. Not all building construction is architecture. This finds support in the quotation from Hosking, contained in Webster's Dictionary under the title "Building," in which it is said:

"The execution of works of architecture necessarily includes building, but building is frequently employed when the result is not architectural."

In other words, building construction and buildings require the exercise not simply of the architectural art and the skill of the architect, but also embody and employ the mechanical arts and the mechanical skill. We submit that whenever a construction of a building is so novel and ingenious that it is beyond the ordinary skill and knowledge of the architect, or of the builder, or of the mechanic, and amounts to a new creation, such is not a part of the known architectural art or of the known building or mechanical arts, and is patentable as a new manufacture.

The term "architecture" is employed not simply in connection with buildings, but also in connection with ships and the art of fortification. For instance, Webster's International Dictionary, under the title of "Architecture," says:

"I. The art or science of building; especially the art of building houses, churches, bridges, and other structures, for the purposes of civil life; often called civil architecture.

"2. A method or style of building, characterized by certain peculiarities of structure, ornamentation, etc.

"''Many other architectures beside Gothic.'-Ruskin.

"3. Construction, in a more general sense, frame or structure, workmanship. Military architecture —the art of fortification. Naval architecture—the art of building ships." Nelson's Encyclopaedia of 1907 says:

"Architecture is the art of building according to certain well defined principles of proportion and symmetry, so that a device, when completed, shall not only suit the purpose for which it was erected, in accommodation and usefulness, but at the same time form a harmonious whole, externally and internally."

The New International Encyclopedia (1902) says of architecture:

"In its widest sense this term includes any kind of construction, such as works of military and naval architecture and civil engineering; but strictly speaking it is building raised by certain esthetic qualities to the rank of art, as distinguished from purely utilitarian or mechanical building."

Here again we have the thought that architecture does not pertain to the mechanical building so much as it does to the artistic and decorative senses.

The "Dictionary of Architecture and Building," by Sturgis (1901), says of architecture:

"A. The art and process of building with some elaboration with skilled labor; and, by extension, the results of such building; thus, skilled shipbuilding, whether wholly traditional, as among the islanders of the Pacific, or partly scientific, as among the European peoples, is called naval architecture.

"B. The modification of structure, form and color of houses, churches, and civic buildings by means of which they become interesting as works of fine art. It is this sense which is commonly given to the term when used without qualification."

We thus see that, with architecture, like many of the other sciences, one science includes another, and it is not proper to say that a thing is merely an architectural design any more than it is to say that it is merely a mechanical design.

This view is borne out by one of the definitions of "architecture" given by the Century Dictionary:

"4. Construction and formative design of any kind."

We often refer to working out an elaborate machine as "machine design," and the occupation of many of our skilled mechanics is given as "machine designers." This, in fact, might be said to be a species of architecture in its broadest acceptation. Yet because included in the most generic meaning of "architecture" would it be unpatentable? Or would the test be, Did it involve the exercise of the inventive faculty as distinguished from the ordinary skill of the mechanic?

In sustaining the demurrer the Honorable District Judge said:

"The thing secured by plaintiff's patent is purely an architectural design or product, and cannot, without the torturing of plain and unambiguous words, be called a manufacture."

We submit that this statement is unjustified. It is not torturing the meaning of the word "manufacture," as used in the patent statutes, to give it that plain and usual meaning which it had when the statutes were first enacted. The court so held in *Crier v. Innes*, and in *Rex v. Wheeler* (2 B. & Ald. 349) the Court of King's Bench said:

"The word 'manufacture' has generally been understood to denote either a thing made which is useful for its own sake or vendable as such." A building is a thing made and it is useful for its own sake. This decision shows that to be a manufacture a thing need not be a vendible commercial article. The question of whether a given building construction is an architectural design or product is one of fact depending upon whether it was within the ordinary knowledge and skill of an architect or whether it was a creation which was unknown to architecture and the creation of which involved creative genius and, therefore, invention. Architects are no more inventors than are our skilled mechanics, and the ordinary craft of the architect no more includes invention, as incidental to the production of his ordinary design or plans, than does the ordinary skill of any other person skilled in any of the other sciences.

In his usual labors an architect is no more presumed to invent new constructions than is the mechanical engineer who is called in to design and plan a power plant. Both are presumed to *select* the best, *from the known things*, to fit the particular needs of the construction to be erected, but neither in his ordinary calling is called upon to create new structures. The creation of new structures and new combinations is the advancement of these arts, and the patent statutes were designed as a means of reward for securing to anyone, be he architect, mechanic, or layman, for a limited time, the monopoly of his discovery or invention.

"Architecture is the art of building according to certain determined rules. The owner does not know the rules. He employes an architect, who makes the plans in accordance with them."

Louisiana Molasses Co. v. La Sassier, 52 La. Ann. 2070, 28 Southern 217, 220.

In other words, the architect plans according to previous experience, prior structures and the customs and traditions of his art; he is dependent upon common knowledge; he figures the strength of materials, the stresses and strains to which they will be subjected, and proportions accordingly, but he does not create new combinations in new relations. This is invention. The architect, like the skilled mechanic, works according to approved practice and methods and the common knowledge of his science. He follows where prior experience has led him. The inventor creates. He goes outside and beyond past experience and past structures and produces new things-novel combinations. A mere architectural design or plan will never embrace a new combination or novel construction. All will be copied from something prior. There may be selection, but not invention.

The Honorable District Judge has fallen into another error, for in referring to *Crier v. Innes*, he says:

"The form of monument there involved does not appear from the report of the case, but I can well see how, if fashioned or sculptured from a monolith, it might be appropriately denominated a manufacture."

As was shown to your Honors at the oral argument, the monument in this case did consist of a built-up structure of four parts, the next to top part evidently being the real hollow sarcophagus, but the patent does not require that the monument be made of four *stones*, it may be of reinforced concrete, or any other suitable construction. The patent was on the *design or configuration* of the monument when completed and as a manufactured article. His Honor virtually waives this decision aside and refuses to follow it. It is, however, a recent and a deliberate consideration of the exact question here involved. The judges comprising the court are well known for their thoroughness in patent cases and the decision is worthy as an authority. It cannot be distinguished from the patent at bar, and the ruling of Judges-LaCombe, Ward and Noyes *must either be followed or repudiated*. Either it is the law of this case or it is not. There is no neutral ground.

The Holmes' combination does not include a whole building, any more than did the patents in Jackson v. Nagle, Sanitary Fireproofing Co. v. Sprickelhoff, or French v. Carter. If the portions of a building or the improvements in building construction, held to be patentable in these cases, were patentable subject-matters, then the Holmes' combination is clearly patentable.

That the Holmes combination is patentable as a manufacture, within the scope of the statute, seems so clear and uncontrovertible that it does not seem necessary to consider whether it also is an improvement in an art or in a machine, or both.

It is, of course, immaterial whether it be an improvement in an "art," "machine," "manufacture," or "composition of matter," or an improvement in each and all of these, so long as it can possibly be within any one or more of them. The general rule is for courts to uphold patents if possible.

The combination of all the claims of the Holmes patent except claims I and 2 should be construed not only as manufactures but also as "machines." The bed is a co-operating element of these combinations. A bed is not architecture. It is a manufacture, but it is also a machine. The Holmes combination is a mechanical combination. The element of the bed co-operating with the secondary floor and ventilating means again points out a radical departure from mere architecture. It is clear that the Holmes combination is clearly within the statute and a patentable subject-matter *if novel*, and the question of its novelty should be left to the jury upon all the evidence to be produced by the parties.

It, therefore, appearing that the order sustaining the demurrer was erroneous and the judgment also erroneous, both should be reversed and the cause remanded for trial on its merits:

> FREDERICK S. LYON, Attorney for Plaintiff in Error.

Los Angeles, Cal., April 21, 1910.